

condition of education 2005



INDICATOR 9

Reading Performance of Students in Grades 4 and 8

The indicator and corresponding tables are taken directly from *The Condition of Education 2005*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 200*5, visit the NCES website (http://nces.ed.gov/pubsearch/pubsinfo.sap?pubid=2005094) or contact ED PUBs at 1-877-4ED-PUBS.

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Academic Outcomes

Reading Performance of Students in Grades 4 and 8

While 8th-graders' reading performance improved between 1992 and 2003, no difference was detected in the performance of 4th-graders.

* Significantly different from 2003.

¹ Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

NOTE: In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2003) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. Beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. In years with assessments for accommodations permitted and not permitted, NAEP focuses on comparisons using the accommodations-permitted results. The 2003 reading assessment did not include students in grade 12. See supplemental note 4 for more information on testing accommodations, achievement levels, and the National Assessment of Educational Progress (NAEP).

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). The Nation's Report Card: Reading Highlights 2003 (NCES 2004-452) and NAEP web data tool (http://nces.ed.gov/nationsreportcard/ naepdata/search.asp). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), selected years, 1992-2003 Reading Assessments.



FOR MORE INFORMATION Supplemental Notes 1,4 Supplemental Tables 9-1, 9-2,9-3

The National Assessment of Educational Progress (NAEP) has assessed performance in reading in grades 4 and 8 in public and private schools since 1992, using the assessment reported here. The average reading score, which represents what students know and can do, of 4th-graders in 2003 was not significantly different from that in 1992. After decreasing in the late 1990s, the average score increased from 2000 to 2002, with the score in 2003 not significantly different from that in 2002. The average score of 8th-graders was higher in 2003 than in 1992 but decreased 1 point from 264 in 2002 to 263 in 2003.

Achievement levels, which identify what students should know and be able to do at each grade, provide another measure of student performance. The percentages of 4th- and 8th-graders who read at or above Proficient increased between 1992 and 2003 (see supplemental table 9-1). The percentage of 8th-graders at or above Basic was higher in 2003 than in 1992. Changes in percentile scores show improvements or declines for higher- to lower-performing students. In 4th grade, scores at the 75th percentile were higher in 2003 than in 1992. There were increases in the scores in grade 8 at the 10th, 25th, 50th and 75th percentiles.

Certain subgroups outperformed others in reading in 2003. Females outperformed males in both grades (see supplemental table 9-2). White and Asian/Pacific Islander students had higher average scores than American Indian, Hispanic, and Black students in grades 4 and 8. Additionally, in grade 4, White students outperformed Asian/ Pacific Islander students and Hispanic students outperformed Black students. The number of books in the home at both grades was positively associated with student achievement, as was parents' education at grade 8. The level of poverty in the school, as measured by the percentage of students eligible for free or reduced-price lunch, was negatively associated with student achievement in both grades in 2003.

NAEP also provides a comparison of public schools among the states in grades 4 and 8. In grade 4, of the 42 states and jurisdictions that participated in 1992 and 2003, the average reading score increased in 13 and decreased in 5 (see supplemental table 9-3). In grade 8, of the 39 states and jurisdictions that participated in 1998 and 2003, 8 experienced an increase in achievement, and 7 experienced a decrease.

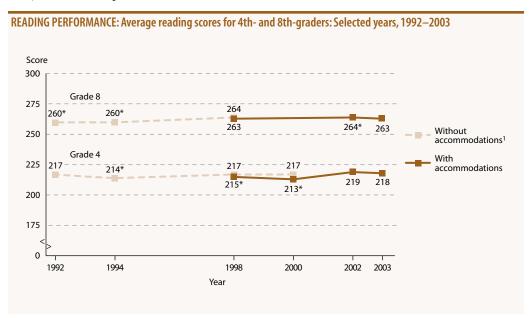


Table 9-1. Average reading score by percentile and percentage of students at each achievement level, by grade: Selected years, 1992–2003

Grade, percentile, and achievement level	1992¹	1994¹	1998¹	1998	2000¹	2000	2002	2003
Average score								
Grade 4	217	214*	217	215*	217	213*	219	218
Standard deviation ²	36*	41*	38	39*	40*	42*	36*	37
Grade 8	260*	260*	264	263	_	_	264*	263
Standard deviation ²	36	37*	35	35	_	_	34*	35
Grade 12	292	287	291	290	_	_	287	_
Standard deviation ²	33	37	38	38	_	_	37	_
Percentile								
Grade 4								
10th	170	159*	167	163*	163*	159*	170	169
25th	194	189*	193	191*	193	189*	196	195
50th	219	219	220	217*	221	218*	221	221
75th	242*	243	244	242*	245	243*	244	244
90th	261	263	263	262	264	262	263*	264
Grade 8								
10th	213*	211*	217	216	_	_	220*	217
25th	237*	236*	242	241	_	_	244*	242
50th	262*	262*	267	266	_	_	267	266
75th	285*	286	288	288	_	_	288	288
90th	305	305	305	306	_	_	305	306
Grade 12								
10th	249	239	242	240	_	_	237	_
25th	271	264	268	267	_	_	263	_
50th	294	290	293	293		_	289	_
75th	315	313	317	317		_	312	_
90th	333	332	337	336		_	332	_

Table 9-1. Average reading score by percentile and percentage of students at each achievement level, by grade: Selected years, 1992–2003

—Continued

Grade, percentile,								
and achievement level	1992¹	1994¹	1998¹	1998	2000¹	2000	2002	2003
				Percentage at ac	hievement leve	I		
Grade 4								
Below Basic	38	40*	38	40*	37	41*	36	37
At or above Basic	62	60*	62	60*	63	59*	64	63
At or above Proficient	29*	30	31	29*	32	29	31	31
At Advanced	6	7	7	7	8	7	7*	8
Grade 8								
Below Basic	31*	30*	26	27			25*	26
At or above Basic	69*	70*	74	73	_	_	75*	74
At or above Proficient	29*	30*	33	32	_	_	33	32
At Advanced	3	3	3	3	_	_	3	3
Grade 12								
Below Basic	20	25	23	24	_	_	26	_
At or above Basic	80	75	77	76			74	
At or above Proficient	40	36	40	40	_	_	36	_
At Advanced	4	4	6	6	_	_	5	

⁻⁻⁻ Not available.

NOTE: In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2003) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. Beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. The 2003 reading assessment did not include students in grade 12. See *supplemental note 4* for more information on testing accommodations, achievement levels, and the National Assessment of Educational Progress (NAEP). SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). *The Nation's Report Card: Reading Highlights 2003* (NCES 2004–452) and NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), selected years, 1992–2003 Reading Assessments.

^{*} Significantly different from 2003.

¹ Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

² The standard deviation measures the spread of a set of data around the mean of the data. In a normal distribution, approximately 68 percent of scores fall within plus or minus one standard deviation of the mean, and 95 percent fall within plus or minus two standard deviations of the mean.

Table 9-2. Average reading score for 4th- and 8th-graders, by selected student and school characteristics: 2003

Student or school characteristic	Grade 4	Grade 8
Total	218	263
Sex		
Male	215	258
Female	222	269
Race/ethnicity ¹		
American Indian	202	246
Asian/Pacific Islander	226	270
Black	198	244
White	229	272
Hispanic	200	245
Parents' education		
Less than high school	_	245
High school diploma or equivalent	_	254
Some college	_	267
Bachelor's degree or higher	_	273
How often student discusses studies at home		
Every day	216	267
2–3 times a week	228	271
1–2 times a month	216	260
Never/hardly ever	212	253
Number of books in the home		
0–10	192	238
11–25	204	249
26–100	223	264
More than 100	229	278
Control		
Public	216	261
Private	235	282
Location		
Central city	212	258
Urban fringe/large town	222	267
Rural/small town	220	264
Enrollment	220	201
Less than 300	222	269
300–999	218	264
	210	
1,000 or more	210	260
Percent of students in school eligible for free or reduced–price lunch 0–10	238	280
	228	
11-25		270
26-50	221	263
51–75	211	253
76–100	194	239

[—] Not available.

¹ American Indian includes Alaska Native, Black includes African American, Pacific Islander includes Native Hawaiian, and Hispanic includes Latino. Race categories exclude Hispanic origin unless specified.

NOTE: See *supplemental note 1* for information on parents' education, location, and free or reduced-price lunch. See *supplemental note 4* for information on the National Assessment of Educational Progress (NAEP).

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). *The Nation's Report Card: Reading Highlights 2003* (NCES 2004—452), NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/), and previously unpublished tabulation (November 2003). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), 2003 Reading Assessment.

Table 9-3. Average reading score for public school 4th- and 8th-graders and change in score since 1992 and 1998, by state and jurisdiction: 2003

	G	irade 4	Grade 8		
sdiction sco	Average re in 2003	Change from 1992 ¹ average score	Average score in 2003	Change from 1998 average score	
aretion see	216	2	261*	1	
	207*	#	253*	-2	
	212*	π	256*	-2	
	209*		255*	-5	
	214*	3	258*		
	206*	3	251*		
	224*	7**	268*		
	228*	7**	267*	-3	
	224*	11**	265*		
	218	10**	257*	3	
	214*	1	258*	#	
	208*	5**	251*		
	218	-1	264*		
	216		266*		
	220*	-1	265*		
	223*	-2	268*		
	220*		266*	-2	
	219		266*	4	
	205*	1	253*	2	
	224*		268*	-3	
	219		262		
ts	228*	2	273*		
(3	219	3	264		
	223*	2	268*	3	
	205*	6**	255*		
	222*	2	267*		
	223*		270*	<u></u>	
	221*	-1	266*	<u>'</u>	
	207*	<u> </u>	252*	-5	
nire	228*	#	271*		
iii C	225*	2	268*	_	
	203*	-8**	252*	-6	
	222*	8**	265*		
 na	221*	10**	262	-1	
a	222*	-4**	270*	<u>'</u>	
	222*	4**	267*		
	214*	-7**	262	-4	
	218		264*	-2	
1	219		264*		
				3	
2					
na a f table.	216 215 222* 212*	# 5** — #	261 258* 270* 258*		

Table 9-3. Average reading score for public school 4th- and 8th-graders and change in score since 1992 and 1998, by state and jurisdiction: 2003—Continued

	G	rade 4	G	Grade 8		
State or jurisdiction	Average score in 2003	Change from 1992 ¹ average score	Average score in 2003	Change from 1998 average score		
Texas	215	2	259*	-2		
Utah	219*	-1	264*	1		
Vermont	226*	_	271*	_		
Virginia	223*	3	268*	2		
Washington	221*	-	264*	1		
West Virginia	219*	4**	260	-2		
Wisconsin	221*	-3**	266*	1		
Wyoming	222*	-1	267*	4**		
Other jurisdictions						
District of Columbia	188*	#	239*	3		
DDESS ³	223*	<u> </u>	269*	1		
DoDDS⁴	225*	-	273*	4**		

⁻⁻⁻ Not available.

NOTE: At the state level, the National Assessment for Educational Progress (NAEP) includes only students in public schools, while other reported national results in this indicator include both public and private school students. Variations or changes in exclusion rates for students with disabilities and limited-English-proficient students in the NAEP samples may affect comparative performance results. Beginning in 2002, the NAEP national sample was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. See *supplemental note 4* for more information on testing accommodations and the National Assessment of Educational Progress (NAEP).

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). *The Nation's Report Card: Reading Highlights 2003* (NCES 2004—452), tables 1 and 2 and figures 1 and 2, NAEP web data tool (https://nces.ed.gov/nationsreportcard/naepdata/), and previously unpublished tabulation (November 2003). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP),1992, 1998, and 2003 Reading Assessments.

[#] Rounds to zero.

^{*} Significantly different from national average in 2003.

^{**} Change in score is statistically significant.

¹ Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted on the 1992 reading assessment.

² National results for assessments before 2003 are based on the national sample, not on aggregated state samples.

³ Department of Defense Domestic Dependent Elementary and Secondary Schools.

⁴ Department of Defense Dependent Schools (overseas).

Table S9. Standard errors for the average reading scores for 4th- and 8th-graders: Selected years, 1992–2003

Average scale score	1992¹	1994¹	1998¹	1998	2000¹	2000	2002	2003
Grade 4	0.94	1.02	0.78	1.14	0.81	1.27	0.42	0.27
Grade 8	0.92	0.83	0.77	0.76	_	_	0.42	0.26

⁻⁻⁻ Not available.

¹Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). The Nation's Report Card: Reading Highlights 2003 (NCES 2004—452) and NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), selected years, 1992—2003 Reading Assessments.

Table S9-1. Standard errors for the average reading score by percentile and percentage of students at each achievement level, by grade: Selected years, 1992–2003

Grade, percentile,								
and achievement level	1992¹	1994¹	1998¹	1998	2000¹	2000	2002	2003
				Averag	e score			
Grade 4	0.94	1.02	0.78	1.14	0.81	1.27	0.42	0.27
Standard deviation	0.61	0.56	0.58	0.71	0.77	0.90	0.29	0.16
Grade 8	0.92	0.83	0.77	0.76	_		0.42	0.26
Standard deviation	0.35	0.40	0.59	0.53	_		0.26	0.19
Grade 12	0.55	0.69	0.72	0.60	_	_	0.66	_
Standard deviation	0.36	0.51	0.45	0.37	_	_	0.39	_
Percentile								
Grade 4								
10th	1.90	1.52	1.43	2.08	1.89	2.29	0.89	0.50
25th	1.13	1.05	0.90	1.73	0.91	1.37	0.49	0.36
50th	1.28	1.28	1.24	1.31	1.12	1.65	0.48	0.30
75th	1.08	1.29	0.90	0.88	0.82	0.80	0.48	0.29
90th	1.42	1.70	0.91	0.92	0.91	1.38	0.38	0.28
Grade 8								
10th	1.20	1.89	1.90	1.66	_		0.53	0.58
25th	1.08	1.10	0.89	0.72	_	_	0.53	0.34
50th	1.08	0.71	0.78	0.68	_	_	0.45	0.26
75th	0.84	1.10	0.59	1.03	_	_	0.45	0.32
90th	1.33	1.20	0.97	0.76	_	_	0.51	0.22
Grade 12								
10th	0.80	0.90	1.29	0.63	_	_	1.54	_
25th	0.80	0.93	1.16	0.84	_		1.35	
50th	0.78	0.64	0.85	0.62	_		0.66	_
75th	0.50	0.78	0.87	0.74	_	_	0.59	_
90th	0.71	1.20	0.81	0.81	_	_	0.87	_
See notes at end of table.								

See notes at ena or table.

Table S9-1. Standard errors for the average reading score by percentile and percentage of students at each achievement level, by grade: Selected years, 1992–2003—Continued

Grade, percentile,								
and achievement level	1992¹	1994¹	1998¹	1998	2000¹	2000	2002	2003
			1	Percentage at ac	chievement level	l		
Grade 4								
Below Basic	1.06	1.03	0.94	1.19	0.83	1.35	0.47	0.30
At or above Basic	1.06	1.03	0.94	1.19	0.83	1.35	0.47	0.30
At or above Proficient	1.22	1.09	0.86	0.95	0.88	1.09	0.44	0.33
At Advanced	0.62	0.71	0.47	0.47	0.50	0.58	0.20	0.13
Grade 8								
Below Basic	0.97	0.89	0.88	0.80		_	0.47	0.26
At or above Basic	0.97	0.89	0.88	0.80	_	_	0.47	0.26
At or above Proficient	1.12	0.91	0.94	1.05	_	_	0.51	0.27
At Advanced	0.33	0.27	0.37	0.27	_	_	0.19	0.08
Grade 12								
Below Basic	0.60	0.73	0.94	0.70	_	_	0.75	_
At or above Basic	0.60	0.73	0.94	0.70	_	_	0.75	_
At or above Proficient	0.83	0.96	0.93	0.73	_	_	0.84	_
At Advanced	0.28	0.54	0.37	0.36	_	_	0.27	_

⁻⁻⁻ Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). The Nation's Report Card: Reading Highlights 2003 (NCES 2004—452) and NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), selected years, 1992—2003 Reading Assessments.

¹Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted.

Table S9-2. Standard errors for the average reading score for 4th- and 8th-graders, by selected student and school characteristics: 2003

Student or school characteristic	Grade 4	Grade 8
Total	0.27	0.26
Sex		
Male	0.33	0.28
Female	0.32	0.29
Race/ethnicity		
American Indian	1.35	3.00
Asian/Pacific Islander	1.22	1.13
Black	0.42	0.50
White	0.24	0.23
Hispanic	0.59	0.68
Parents' education		
Less than high school		0.69
High school diploma or equivalent		0.36
Some college	<u> </u>	0.36
Bachelor's degree or higher	_	0.31
How often students discusses studies at home		
Every day	0.32	0.44
2–3 times a week	0.39	0.37
1–2 times a month	0.49	0.40
Never/hardly ever	0.45	0.38
Number of books in the home		
0–10	0.60	0.58
11–25	0.35	0.48
26–100	0.31	0.32
More than 100	0.32	0.31
Control		
Public	0.27	0.24
Private	0.76	0.71
Location		
Central city	0.52	0.55
Urban fringe/large town	0.33	0.46
Rural/small town	0.54	0.42
Enrollment		
Less than 300	0.71	1.01
300–999	0.37	0.33
1,000 or more	2.08	0.69
Percent of students in school eligible for free or reduced–price lunch		
0–10	0.50	0.45
11–25	0.63	0.56
26–50	0.46	0.41
51-75	0.50	0.65
76–100	0.54	1.02
	***	1.02

[—] Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). *The Nation's Report Card: Reading Highlights 2003* (NCES 2004—452), NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/), and previously unpublished tabulation (November 2003). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), 2003 Reading Assessments.

Table S9-3. Standard errors for the average reading score for public school 4th- and 8th-graders and change in score since 1992 and 1998, by state and jurisdiction: 2003

		irade 4	Grade 8			
State or jurisdiction	Average score in 2003	Change from 1992 average score	Average score in 2003	Change from 1998 average score		
Nation	0.27	1.06	0.24	0.82		
Alabama	1.73	†	1.51	2.09		
Alaska	1.64	_	1.10	_		
Arizona	1.25	1.76	1.36	1.75		
Arkansas	1.38	1.83	1.29	1.81		
California	1.24	2.37	1.28	2.06		
Colorado	1.22	1.66	1.20	1.56		
Connecticut	1.10	1.69	1.08	1.49		
Delaware	0.65	0.91	0.74	1.52		
Florida	1.15	1.69	1.33	1.94		
Georgia	1.25	1.93	1.14	†		
Hawaii	1.37	2.18	0.87	1.31		
Idaho	1.01	1.37	0.89	_		
Illinois	1.57	_	1.01	_		
Indiana	0.98	1.60	1.04	_		
lowa	1.11	1.53	0.79	_		
Kansas	1.19		1.48	2.06		
Kentucky	1.33	1.84	1.25	1.89		
Louisiana	1.41	1.82	1.58	2.09		
Maine	0.92	1.40	0.98	1.53		
Maryland	1.41	2.12	1.45	2.29		
Massachusetts	1.22	†	0.96	1.69		
Michigan	1.19	1.92	1.84	_		
Minnesota	1.10	1.64	1.08	1.74		
Mississippi	1.35	1.88	1.38	1.80		
Missouri	1.17	1.70	1.01	1.66		
Montana	1.20	_	1.04	1.68		
Nebraska	1.00	1.49	0.91	_		
Nevada	1.24	_	0.82	1.28		
New Hampshire	0.98	†	0.93	_		
New Jersey	1.18	1.85	1.21	_		
New Mexico	1.53	2.12	0.87	1.52		
New York	1.09	1.77	1.33	2.00		
North Carolina	1.02	1.52	0.98	1.44		
North Dakota	0.85	1.42	0.78	_		
Ohio	1.15	1.77	1.32	_		
Oklahoma	1.24	1.56	0.95	1.53		
Oregon	1.30		1.23	1.93		
Pennsylvania	1.28	1.82	1.18	_		
Rhode Island	1.32	†	0.71	1.17		
South Carolina	1.29	1.84	1.26	1.64		
South Dakota	1.17	_	0.77	-		
Tennessee	1.60	†	1.17	†		
See notes at end of table.		•		'		

Table S9-3. Standard errors for the average reading score for public school 4th- and 8th-graders and change in score since 1992 and 1998, by state and jurisdiction: 2003—Continued

	Grade 4		Gı	rade 8
State or jurisdiction	Average score in 2003	Change from 1992 average score	Average score in 2003	Change from 1998 average score
Texas	1.05	1.87	1.12	1.79
Utah	1.02	1.52	0.84	1.33
Vermont	0.91	_	0.82	_
Virginia	1.50	2.03	1.05	1.53
Washington	1.12	_	0.88	1.47
West Virginia	1.03	1.65	1.00	1.43
Wisconsin	0.85	1.29	1.27	2.24
Wyoming	0.84	1.42	0.53	1.42
Other jurisdictions				
District of Columbia	0.86	†	0.75	2.25
DDESS	1.22	_	1.37	4.66
DoDDS	0.63	<u> </u>	0.69	1.22

[—] Not available.

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES). (2003). *The Nation's Report Card: Reading Highlights 2003* (NCES 2004—452), NAEP web data tool (http://nces.ed.gov/nationsreportcard/naepdata/), and previously unpublished tabulation (November 2003). Data from U.S. Department of Education, NCES, National Assessment of Educational Progress (NAEP), 1992, 1998, and 2003 Reading Assessments.

[†] Not applicable.